



アメリカ

# Cordless Angle Impact Driver

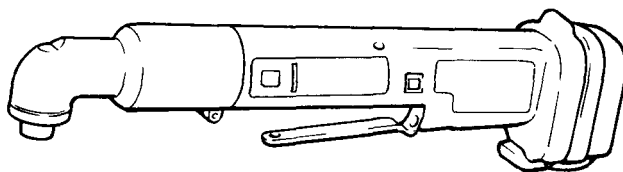
Equipped with Electric Brake

**MODEL 6940D**

**MODEL 6940DW**

With Fast Charger

## INSTRUCTION MANUAL



### SPECIFICATIONS

#### • Model 6940D

Capacities	No load speed (RPM)	Impact per minute	Fastening torque	Overall length	Net weight
Machine screw					
M4 -- M8	0 -- 2,000	0 -- 2,700	300 kg·cm (21 ft·lbs)	370 mm (14-9/16")	1.5 kg (3.3 lbs)

#### • Battery Cartridge 9100

#### • Model DC9700 Fast Charger

Voltage	Input	Output	Charging time
9.6 V	A.C. only 50 Hz -- 60 Hz	D.C. 7.2 V, 9.6 V	1 Hr.

\* Manufacturer reserves the right to change specifications without notice.

• Note: Specifications may differ from country to country.

WARNING: For your personal safety, READ and UNDERSTAND before using.

SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE.

# **IMPORTANT SAFETY INSTRUCTIONS**

## **(For All Tools)**

**WARNING: WHEN USING ELECTRIC TOOLS, BASIC SAFETY PRECAUTIONS SHOULD ALWAYS BE FOLLOWED TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK, AND PERSONAL INJURY, INCLUDING THE FOLLOWING:**

### **READ ALL INSTRUCTIONS.**

1. **KEEP WORK AREA CLEAN.** Cluttered areas and benches invite injuries.
2. **CONSIDER WORK AREA ENVIRONMENT.** Don't use power tools in damp or wet locations. Keep work area well lit. Don't expose power tools to rain. Don't use tool in presence of flammable liquids or gases.
3. **KEEP CHILDREN AWAY.** All visitors should be kept away from work area. Don't let visitors contact tool or extension cord.
4. **STORE IDLE TOOLS.** When not in use, tools should be stored in dry, and high or locked-up place — out of reach of children.
5. **DON'T FORCE TOOL.** It will do the job better and safer at the rate for which it was intended.
6. **USE RIGHT TOOL.** Don't force small tool or attachment to do the job of a heavy-duty tool. Don't use tool for purpose not intended; for example, don't use circular saw for cutting tree limbs or logs.
7. **DRESS PROPERLY.** Don't wear loose clothing or jewelry. They can be caught in moving parts. Rubber gloves and non-skid footwear are recommended when working outdoors. Wear protective hair covering to contain long hair.
8. **USE SAFETY GLASSES.** Also use face or dust mask if cutting operation is dusty.
9. **DON'T ABUSE CORD.** Never carry tool by cord or yank it to disconnect from receptacle. Keep cord from heat, oil, and sharp edges.
10. **SECURE WORK.** Use clamps or a vise to hold work. It's safer than using your hand and it frees both hands to operate tool.
11. **DON'T OVERREACH.** Keep proper footing and balance at all times.
12. **MAINTAIN TOOLS WITH CARE.** Keep tools sharp and clean for better and safer performance. Follow instructions for lubricating and changing accessories. Inspect tool cords periodically and if damaged, have repaired by authorized service facility. Inspect extension cords periodically and replace if damaged. Keep handles dry, clean, and free from oil and grease.
13. **DISCONNECT TOOLS.** When not in use, before servicing, and when changing accessories, such as blades, bits, cutters.

14. **REMOVE ADJUSTING KEYS AND WRENCHES.** Form habit of checking to see that keys and adjusting wrenches are removed from tool before turning it on.
15. **AVOID UNINTENTIONAL STARTING.** Don't carry tool with finger on switch. Be sure switch is OFF when plugging in.
16. **EXTENSION CORDS.** Make sure your extension cord is in good condition. When using an extension cord, be sure to use one heavy enough to carry the current your product will draw. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating. Table 1 shows the correct size to use depending on cord length and nameplate ampere rating. If in doubt, use the next heavier gage. The smaller the gage number, the heavier the cord.

TABLE 1 MINIMUM GAGE FOR CORD SETS

			Total Length of Cord in Feet			
			0 – 25	26 – 50	51 – 100	101 – 150
Ampere Rating More Than	—	Not More Than	A W G			
0	—	6	18	16	16	14
6	—	10	18	16	14	12
10	—	12	16	16	14	12
12	—	16	14	12	Not Recommended	

17. **OUTDOOR USE EXTENSION CORDS.** When tool is used outdoors, use only extension cords intended for use outdoors and so marked.
18. **STAY ALERT.** Watch what you are doing, use common sense. Don't operate tool when you are tired.
19. **CHECK DAMAGED PARTS.** Before further use of the tool, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced by an authorized service center unless otherwise indicated elsewhere in this instruction manual. Have defective switches replaced by authorized service center. Don't use tool if switch does not turn it on and off.
20. **GUARD AGAINST ELECTRIC SHOCK.** Prevent body contact with grounded surfaces. For example; pipes, radiators, ranges, refrigerator enclosures.
21. **REPLACEMENT PARTS.** When servicing, use only identical replacement parts.
22. **POLARIZED PLUGS.** To reduce the risk of electric shock, this equipment has a polarized plug (one blade is wider than the other). This plug will fit in a polarized outlet only one way. If the plug does not fit fully in the outlet, reverse the plug. If it still does not fit, contact a qualified electrician to install the proper outlet. Do not change the plug in any way.

**VOLTAGE WARNING:** Before connecting the tool to a power source (receptacle, outlet, etc.) be sure the voltage supplied is the same as that specified on the nameplate of the tool. A power source with voltage greater than that specified for the tool can result in **SERIOUS INJURY** to the user — as well as damage to the tool. If in doubt, **DO NOT PLUG IN THE TOOL**. Using a power source with voltage less than the nameplate rating is harmful to the motor.

# IMPORTANT SAFETY INSTRUCTIONS FOR CHARGER & BATTERY CARTRIDGE

1. **SAVE THESE INSTRUCTIONS** — This manual contains important safety and operating instructions for battery charger.
2. Before using battery charger, read all instructions and cautionary markings on (1) battery charger, (2) battery, and (3) product using battery.
3. **CAUTION** — To reduce risk of injury, charge only MAKITA Battery Cartridge 9100. Other types of batteries may burst causing personal injury and damage.
4. Do not expose charger to rain or snow.
5. Use of an attachment not recommended or sold by the battery charger manufacturer may result in a risk of fire, electric shock, or injury to persons.
6. To reduce risk of damage to electric plug and cord, pull by plug rather than cord when disconnecting charger.
7. Make sure cord is located so that it will not be stepped on, tripped over, or otherwise subjected to damage or stress.
8. An extension cord should not be used unless absolutely necessary. Use of improper extension cord could result in a risk of fire and electric shock. If extension cord must be used, make sure:
  - a. That pins on plug of extension cord are the same number, size, and shape as those of plug on charger;
  - b. That extension cord is properly wired and in good electrical condition; and
  - c. That wire size is at least as large as the one specified in the table below.

TABLE 1  
RECOMMENDED MINIMUM AWG SIZE FOR  
EXTENSION CORDS FOR BATTERY CHARGERS

Length of Cord (Feet)	25	50	100	150
AWG Size of Cord	18	18	18	16

9. Do not operate charger with damaged cord or plug — replace them immediately.
10. Do not operate charger if it has received a sharp blow, been dropped, or otherwise damaged in any way; take it to a qualified serviceman.
11. Do not disassemble charger or battery cartridge; take it to a qualified serviceman when service or repair is required. Incorrect reassembly may result in a risk of electric shock or fire.
12. To reduce risk of electric shock, unplug charger from outlet before attempting any maintenance or cleaning. Turning off controls will not reduce this risk.

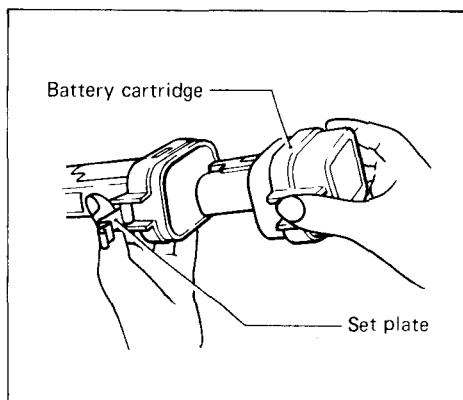
## **ADDITIONAL SAFETY RULES FOR CHARGER & BATTERY CARTRIDGE**

1. Do not charge Battery Cartridge when temperature is **BELOW 10°C (50°F)** or **ABOVE 40°C (104°F)**.
2. Do not attempt to use a step-up transformer, an engine generator or DC power receptacle.
3. Do not allow anything to cover or clog the charger vents.
4. Always cover the battery terminals with the battery cover when the battery cartridge is not used.
5. A battery short can cause a large current flow, overheating, possible burns and even a breakdown.
  - (1) Do not touch the terminals with any conductive material.
  - (2) Avoid storing battery cartridge in a container with other metal objects such as nails, coins, etc.
  - (3) Do not expose battery cartridge to water or rain.
6. Do not store the tool and Battery Cartridge in locations where the temperature may reach or exceed 50°C (122°F).
7. Do not incinerate the Battery Cartridge even if it is severely damaged or is completely worn out. *The battery cartridge can explode in a fire.*

**SAVE THESE INSTRUCTIONS.**

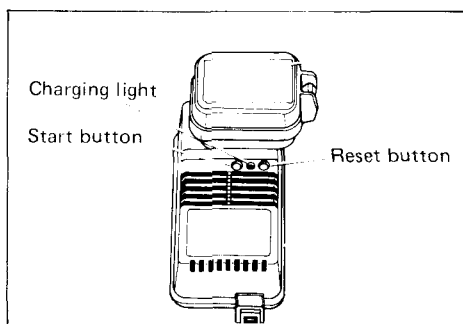
### Installing or removing the battery cartridge

To remove the battery cartridge, pull out the set plate and withdraw the battery cartridge from the machine. To install the battery cartridge, align its tongue with the groove in the housing and slip it into place. Snap the set plate back into place.



### Charging

Plug the fast charger into your power source. Insert the battery cartridge so that its plus and minus terminals are on the same sides as their respective markings on the fast charger. Press the start button (red). The charging light will come on and charging will begin. If the charging light does not come on, press the reset button (yellow) first, then the start button (red). If the charging light goes out within 10 seconds even after pressing the reset button and start button a couple of times, the battery cartridge is dead. (CAUTION: Wait for more than 5 seconds after the charging light goes out to press the reset button again.) Replace it with a new one. When the charging light goes out in a certain time, you may remove the fully charged battery cartridge. (Note: Refer to the table below for the charging time.)



Fast charger Battery cartridge	DC9700	DC1201	DC9015	DC9112
9100	Approx. 60 min.	Approx. 45 min.	Approx. 15 min.	Approx. 60 min.

### CAUTION:

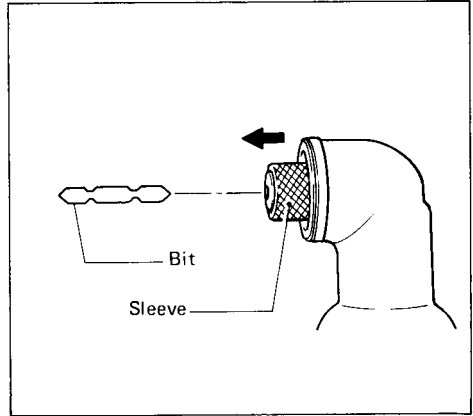
- Do not keep the buttons pressed in with tape. The circuit will not function properly. Also, a malfunction of the charger may result possibly causing overheating.
- If the battery cartridge is warm, let it cool before charging.
- If the battery cartridge is new, or has not been used for a long time, it may not accept a full charge. You can recharge the battery cartridge fully after discharging it completely a completely a couple of times.
- If charging two battery cartridges in succession, give the charger 15 minutes to cool down between the two.

### Installing or removing the bit

#### IMPORTANT:

Always be sure that the machine is switched off and the battery cartridge is removed before installing or removing the bit.

To install the bit, pull the sleeve in the direction of the arrow and insert the bit into the sleeve as far as it will go. Then release the sleeve to secure the bit. To remove the bit, pull the sleeve in the direction of the arrow and pull the bit out firmly.

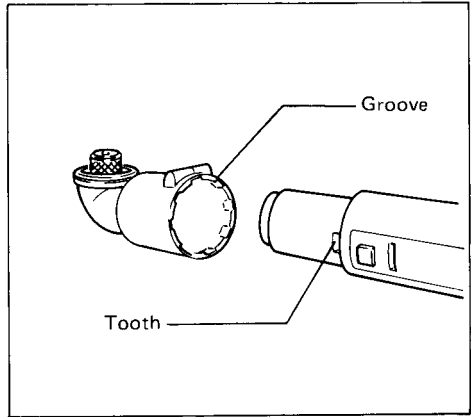
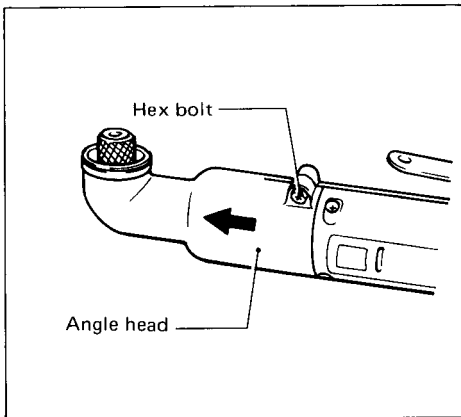


### Adjusting the angle head

#### IMPORTANT:

Always be sure that the machine is switched off and the battery cartridge is removed before adjusting the angle head.

The angle head can be adjusted  $360^\circ$  (8 positions in  $45^\circ$ -degree increments). To adjust it, loosen the hex bolt and remove the angle head. Adjust the angle head to the desired position and reinstall it so that the teeth on the housing will match up with the grooves in the angle head. Then tighten the hex bolt to secure the angle head.





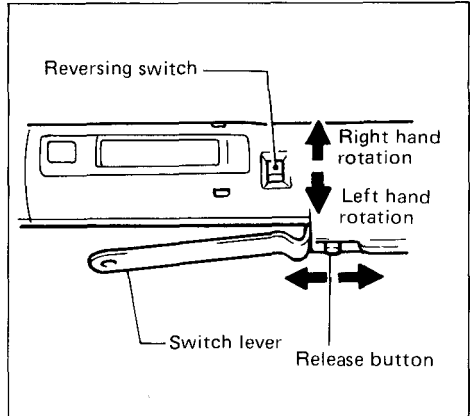
## Switching ON and OFF

### CAUTION:

Before inserting the battery cartridge into the machine, always check to see that the paddle switch actuates properly and returns to the "OFF" position when released.

To switch on, move the release button forward and squeeze the switch lever.

To switch off, release the switch lever.



### CAUTION:

After switching off, always move the release button backward to prevent the machine from being accidentally switched on.

## Variable switch speed control

The speed varies from 0 to maximum, depending on the pressure applied to the switch lever. The more the switch lever is squeezed, the faster the machine runs.

## Reversing switch

### IMPORTANT:

Only reverse the direction of rotation when the motor stops completely.

To change the direction of rotation :

Position F : right hand rotation

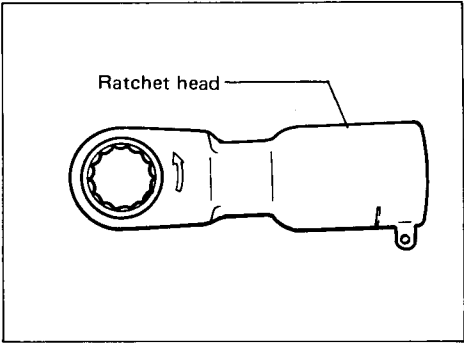
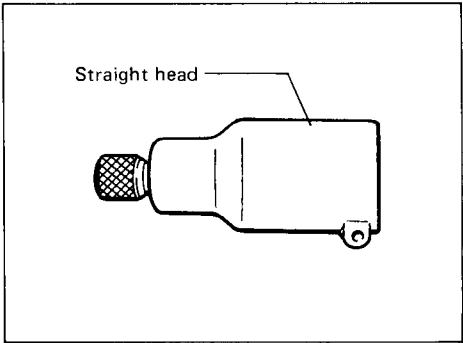
Position R : left hand rotation

## Operation

The proper fastening torque may differ depending upon the kind or size of screws, the type of materials to be fastened, etc. Before starting your job, always perform a test operation to verify adequate fastening torque.

**Straight head and ratchet head**

Straight heads and ratchet heads are available as optional accessories for various applications on the job.



## **MAINTENANCE**

### **CAUTION:**

Always be sure that the tool is switched off and the battery cartridge is removed before attempting to perform inspection or maintenance.



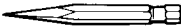
To maintain product **SAFETY** and **RELIABILITY**, repairs, maintenance or adjustment should be performed by Makita Authorized or Factory Service Centers, always using Makita replacement parts.

# ACCESSORIES

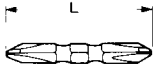
**CAUTION:**

These accessories or attachments are recommended for use with your Makita tool specified in this manual. The use of any other accessories or attachments might present a risk of injury to persons. The accessories or attachments should be used only in the proper and intended manner.

• **Bits**

	Size	Part No.
	# 2	784214-0A
	# 3	784215-0A
	# 5F	784010-0A
	# 7F	784011-0A
		784606-0A

• **Phillips bit**

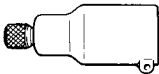


Part No.	Size	L (mm)
784201-5	No. 1	65 (2-5/8'')
784202-3		45 (1-3/4'')
784203-1		65 (2-5/8'')
784206-5		110 (4-3/8'')
784207-3		150 (5-7/8'')

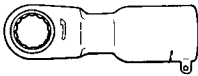
- **Double-ended  
Phillips / Slotted bit**  
2-1/2'' long  
Part No. 784613-A  
  
1-3/4'' long  
Part No. 784614-0



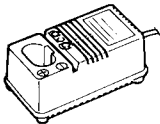
- **Straight head**  
Part No. 192440-7



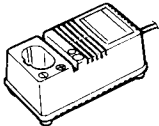
- **Ratchet head**  
Part No. 192439-2



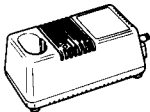
- **Fast charger**  
**Model DC9700**  
Part No. 113103-2



- **Charger 12V for car**  
**Model DC9112**  
Part No. 113110-5



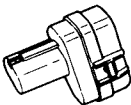
- **Fast charger**  
**Model DC1201**  
Part No. 113126-0



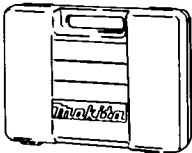
- **Battery cover**  
Part No. 414938-7



- **Battery cartridge 9100**  
Part No. 192019-4

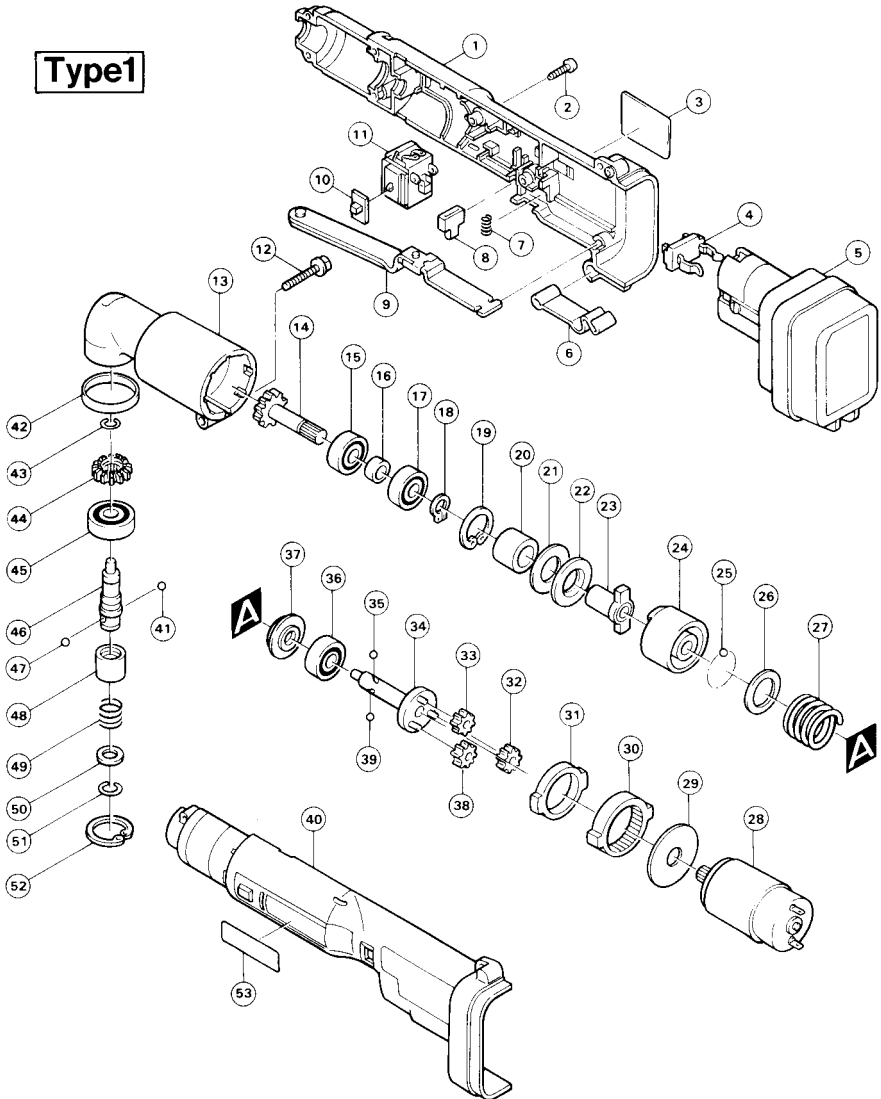


- **Plastic carrying case**



# CORDLESS ANGLE IMPACT DRIVER Model 6940D

**Type1**



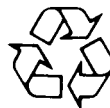
Note: The switch and other part configurations may differ from country to country.

ITEM NO.	NO. USED	DESCRIPTION	ITEM NO.	NO. USED	DESCRIPTION
<b>MACHINE</b>			<b>MACHINE</b>		
1	1	Housing Set (With Item 40)	28	1	DC Motor 9.6 V
2	8	Tapping Screw BT4x20	29	1	Flat Washer 12
3	1	Makita Label	30	1	Internal Gear 69
4	1	Battery Holder	31	1	Ring 32
5	1	Battery 9100	32	1	Spur Gear 29
6	1	Set Plate	33	1	Spur Gear 29
7	1	Compression Spring 6	34	1	Spindle Complete
8	1	Switch Lever	35	1	Steel Ball 4.8
9	1	Lever Complete	36	1	Ball Bearing 6000
10	1	Lever	37	1	Washer 10
11	1	Switch	38	1	Spur Gear 29
12	1	Hex. Bolt M5x30	39	1	Steel Ball 4.8
13	1	Angle Head Complete	40	1	Housing Set (With Item 1)
14	1	Zerol Bevel Gear 13	41	1	Steel Ball 3.5
15	1	Ball Bearing 6000	42	1	Rubber Ring 31
16	1	Sleeve 10	43	1	Ring Spring 9
17	1	Ball Bearing 6000LLB	44	1	Zerol Bevel Gear 13
18	1	Retaining Ring S—10	45	1	Ball Bearing 6001DDW
19	1	Retaining Ring R—26	46	1	Spindle
20	1	Sleeve 15	47	1	Steel Ball 3.5
21	1	Rubber Washer 21	48	1	Sleeve
22	1	Flat Washer 15	49	1	Compression Spring 13
23	1	Anvil	50	1	Flat Washer 12
24	1	Hammer	51	1	Ring Spring 11
25	22	Steel Ball 3.5	52	1	Retaining Ring R—28
26	1	Flat Washer 20	53	1	Name Plate
27	1	Compression Spring 22			

Note: The switch and other part specifications may differ from country to country.

# Recycling the Battery

The only way to dispose of a Makita battery is to recycle it. The law prohibits any other method of disposal.



Ni-Cd

To recycle the battery:

1. Remove the battery from the tool.
  2. a). Take the battery to your nearest Makita Factory Service Center  
or  
b). Take the battery to your nearest Makita Authorized Service Center or Distributor that has been designated as a Makita battery recycling location.
- *Call your nearest Makita Service Center or Distributor to determine the location that provides Makita battery recycling. See your local Yellow Pages under "Tools-Electric".*

## MAKITA LIMITED ONE YEAR WARRANTY

### Warranty Policy

Every Makita tool is thoroughly inspected and tested before leaving the factory. It is warranted to be free of defects from workmanship and materials for the period of ONE YEAR from the date of original purchase. Should any trouble develop during this one-year period, return the COMPLETE tool, freight prepaid, to one of Makita's Factory or Authorized Service Centers. If inspection shows the trouble is caused by defective workmanship or material, Makita will repair (or at our option, replace) without charge.

This Warranty does not apply where:

- repairs have been made or attempted by others;
- repairs are required because of normal wear and tear;
- The tool has been abused, misused or improperly maintained;
- alterations have been made to the tool.

IN NO EVENT SHALL MAKITA BE LIABLE FOR ANY INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES FROM THE SALE OR USE OF THE PRODUCT. THIS DISCLAIMER APPLIES BOTH DURING AND AFTER THE TERM OF THIS WARRANTY.

MAKITA DISCLAIMS LIABILITY FOR ANY IMPLIED WARRANTIES, INCLUDING IMPLIED WARRANTIES OF "MERCHANTABILITY" AND "FITNESS FOR A SPECIFIC PURPOSE," AFTER THE ONE-YEAR TERM OF THIS WARRANTY.

This Warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. Some states do not allow limitation on how long an implied warranty lasts, so the above limitation may not apply to you.

## Makita Corporation

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Anjo, Aichi 446 Japan